IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Abdelilah et al.

Serial No.: To Be Assigned Filed: Concurrently Herewith

For:

RECEIVERS, METHODS, AND COMPUTER PROGRAM PRODUCTS FOR AN

ANALOG MODEM THAT RECEIVES DATA SIGNALS FROM A DIGITAL

MODEM

Date: August 6, 2003

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT CITATION UNDER 37 C.F.R. § 1.97

Sir:

Attached is a list of documents on form PTO-1449. Items 1-103 listed on the PTO-1449 were cited in parent application Serial No. 09/264,085, filed March 8, 1999. Because the benefit of this application is claimed under 35 U.S.C. §120, no copies need to be furnished in accordance with 37 C.F.R. §1.98(d); however, copies will be furnished on request. It is requested that these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. §1.97 and Section 609 of the MPEP.

spectfully submitted

D. Scott Moore

Registration No. 42,011

USPTO Customer No. 20792

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Traci A. Brown

FORM PTO-1449 U.S. Department of Commerce Serial No.: Attorney Docket Number: Patent and Trademark Office to be assigned RAL919980074US2/4269-61CT LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary) Applicants: Abdelilah et al. Filing Date: concurrently herewith Group: uknown U. S. PATENT DOCUMENTS Filing Date Document Examine Number Date Name Class Subclass Initial Appropriate 6,002,723 Chethik 375 317 12/14/99 260 6,005,893 12/21/99 Hyll 375 445 3 6,081,822 06/27/00 Hillery et al. 708 375 231 4 6,052,412 04-18-00 Ruether et al. 5 381 63 6,091,824 7/2000 Lin et al. 708 6,148,423 11-14-00 Le Mouel et al. 714 6,151,364 11-21-00 Ruether et al. 375 254 8 6,151,614 11-21-00 Ikeda 708 322 9 10/31/00 232 6,141,378 d'Orcye de Lantremange 375 6,167,095 12/26/00 375 285 10 Furukawa et al. 6,240,128 5/2001 Banerjea et al. 375 222 11 6,292,654 9/2001 Hessel et al. 375 346 12 222 6,304,594 B1 10/16/01 375 13 Salinger 14 6,337,999 1/2002 Orban 381 106 15 6,341,360 1/2002 Abdelilah et al. 375 233 16 5,517,213 05-14-96 Bhatt et al. 375 232 5,526,378 06-11-96 Knutson et al. 375 229 17 233 18 5,668,833 09-16-97 Kurokami et al. 375 19 375 233 5,742,642 04-21-98 Fertner 20 5,999,349 12-07-99 Choi 360 46 21 4/8/91 370 32.1 5,007,047 Sridhar et al.

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23

24

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26

27

5,249,205

5,271,011

5,293,401

5,309,484

5,490,169

5,471,508

09-28-93

12-14-93

03-08-94

05-03-94

02-06-96

11/28/95

375

371 375

375

375

375

101

5.3

13

106

232

344

Chennakeshu et al.

McMullan, Jr. et al.

Serfaty

Koslov

McLane et al.

Blackwell et al.

.]	49 U.S. Department of Patent and Trademark (Attorney Docket Number: RAL919980074US2/4269-61CT			Serial No.: to be assigned		
LIST OF	DOCUMENTS CITE	D BY APPLIC	CANT				
	(Use several sheets if	necessary)					<u> </u>
				Applicants:			
	1	r	1	Filing Date:	concurrently	herewith	Group: uknown
28	5,710,793	01/20/98	Greenberg	· ——————	375	232	ļ
29	5,987,069	11/16/99	Furukawa et a	al.	375	285	ļ
30	5,835,538	11/10/98	Townshend		375	295	
31	5,831,561	11/3/98	Cai et al.		341	106	
32	5,809,075	9/15/98	Townshend		375	340	
33	5,801,695	9/1/98	Townshend	· · · · · · · · · · · · · · · · · · ·	375	340	
34	5,793,809	8/11/98	Holmquist		375	242	
35	5,784,405	7/21/98	Betts et al.		375	222	<u>.</u>
36	5,778,024	7/7/98	McDonough		375	216	
37	5,768,311	6/16/98	Betts et al.		375	222	<u> </u>
38	5,761,247	6/2/98	Betts et al.		375	316	
39	5,757,849	5/26/98	Gelblum et a	<u>. </u>	375	222	
40	5,754,594	5/19/98	Betts et al.		375.	285	
41	5,729,226	3/17/98	Betts et al.		341	94	
42	5,598,401	1/28/97	Blackwell et	al.	379	94	
43	5,546,395	8/13/96	Sharma et al.		370	84	
44	5,534,913	7/9/96	Majeti et al.		348	7	
45	5,528,679	6/18/96	Taarud		379	34	
46	5,528,625	6/18/96	Ayanoglu et	al.	375	222	
47	5,406,583	4/11/95	Dagdeviren		375	5	
48	5,394,437	2/28/95	Ayanoglu et	al.	375	222	
49	5,394,110	2/28/95	Mizoguchi		329	304	
50	5,291,479	3/1/94	Vaziri et al.	_	370	58.2	
51	5,253,291	10/12/93	Naseer et al.		379	406	
52	5,293,401	3/1994	Serfaty		375	231	
53	5,210,755	5/11/93	Nagler et al.		370	108	
54	5,157,690	10/20/92	Buttle	. — — — — — — — — — — — — — — — — — — —	375	14	
55	5,134,611	7/28/92	Steinka et al.	···	370	79	
56	5,119,403	6/2/92	Krishnan		375	39	
57	5,119,401	6/2/92	Tsujimoto		375	14	

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office					Attorney Docket Number: RAL919980074US2/4269-61CT			Serial No.: to be assigned	
L	IST OF	DOCUMENTS CIT	FED BY APPLI	CANT					
		(Use several sheets	if necessary)						
					Applicants	Abdelilah	et al.		
						Filing Date: concurrently herewith Group: uknow			
	58	5,067,125	11/19/91	Tsuchida		370	79		
	59	5,052,000	9/24/91	Wang et al.		371	43		
	60	5,040,190	8/13/91	Smith et al.		375	4		
	61	5,033,062	7/16/91	Morrow et al		375	7		
	62	5,014,299	5/7/91	Klupt et al.		379	98		
	63	4,995,030	2/19/91	Helf		370	32.1		
	64	4,985,902	1/15/91	Gurcan		375	14		
	65	4,972,360	11/20/90	Cuckier et al.	•	364	724.04		
	66	4,901,333	2/13/90	Hodgkiss		375	98		
-	67	4,890,303	12/26/89	Bader		375	107		
	68	4,884,285	11/28/89	Heynen et al.		375	25		
	69	4,868,863	9/19/89	Hartley et al.		379	98		
	70	4,797,898	1/10/89	Martinez		375	7		
	71	4,792,964	12/1988	Yoshida		375	371		
	72	4,760,598	7/26/88	Ferrell		380	44	,	
	73	4,720,861	1/19/88	Bertrand		381	36		
	74	4,578,796	3/25/86	Caralambous	et al.	375	8		
	75	4,577,310	3/18/86	Korsky et al.		370	58		
	76	4,450,556	5/22/84	Boleda et al.		370	58		
	77	4,434,322	2/28/84	Ferrell		178	22.13		
	78	4,270,027	5/26/81	Agrawal et al		179	81R		
	79	4,237,552	12/2/80	Aikoh et al.	-	370	83		
	80	4,132,242	1/2/79	Carroll, Jr.		137	263		
	81	4,112,427	9/5/78	Hofer et al.		340	347		
	82	4,539,675	9/3/85	Fisher		370	32		
	83	3,729,717	4/24/73	de Koe et al.		340	172.5		
	84	3,683,120	8/8/72	Schenkel		179	15A		
	85	3,557,308	1/19/71	Alexander et	al.	178	69.5		

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office					Attorney Docket Number: RAL919980074US2/4269-61CT			Serial No.: to be assigned		
LIS	ST OF DO	OCUMENTS CITE	D BY APPLI	CANT						
	(U	se several sheets if	necessary)							
					Applicants:	Abdelilah et	al.	,		
			·		Filing Date:	concurrently	herewith	Group: uknown		
			FORE	IGN PATENT I	DOCUMENTS					
		Document Number	Date	Со	untry	Class	Subclass	Translation Yes No		
	86	WO 98/37657	8/27/98	PCT		H04L				
	87	WO 96/18261	6/13/96	PCT		H04M	11/00			
	88	0 669 740 A2	12/14/94	Europe	·	H04L	27/00			
	89	0 659 007 A2	11/8/94	Europe	_ <u></u>	H04M	11/06			
	90	0 473 116 A2	8/27/91	Europe		H04N	1/00			
	91	2 345 019	3/19/76	France		H04L	27/10			
		OTHER DOC	CUMENTS (I	ncluding Autho	r, Title, Date, Pe	rtinent Pages	, Etc.)			
	92	Erup, et al., "Interpolation in Digital Modems - Part II: Implementation and Performance," IEEE Transactions on Communications, Vol. 41, No. 6, June 1993, pp. 998-1008								
	93	Fischer, "Signal Mapping for PCM Modems," V-pcm Rapporteur Meeting, Sunriver, Oregon, USA, September 4-12, 1997, 5 pgs.								
	94	Gardner, "Interpolation in Digital Modems - Part I: Fundamentals," IEEE Transactions on Communications, Vol. 41, No. 3, March 1993, pp. 501-507								
·	95	Humblet et al., "T	he Information	on Driveway," I	EEE Communica	tions Magaz	ine, Decemb	er 1996, pp. 64-68		
·	.96	Kalet et al., "The Capacity of PCM Voiceband Channels," IEEE International Conference on Communications '93, May 23-26, 1993, Geneva, Switzerland, pp. 507-511								
	97	Mueller et al., "Timing Recovery in Digital Synchronous Data Receiver," IEEE Transactions on Communications, Vol. Com-24, No. 5, May 1976, pp. 516-531								
	98	Okubo et al., "Building Block Design of Large Capacity PCM-TDMA Subscriber System and Direct Digital Interface to Digital Exchange," Japan Radio Co., Ltd., Japan, pp. 69-73								
	99	Pahlavan et al., "Nonlinear Quantization and the Design of Coded and Uncoded Signal Constellations," IEEE Transactions on Communications, Vol. 39, No. 8, August 1991, pp. 1207-1215								
	100	Proakis, "Digital Signaling Over a Channel with Intersymbol Interference," Digital Communications, McGraw-Hill Book Company, 1983, pgs. 373, 381								
	101	Williams et al., "Counteracting the Quantisation Noise from PCM Codecs," BT Laboratories, UK, pp. 24-29								
	102	Ayanoglu, et al.; An Equalizer Design Technique for the PCM Modem: A New Modem for the Digital Public Switched Network; IEEE Transactions on Communications; Vol. 46, No. 6; June 1988; Pages 763-774								
	103	Picchi, G. et al.; A This paper appear Conference Record	rs in: Commu	inications, 1988	, ICC '88. Digita					